15.1 ROSTER SURVEY AND ROSTER ITEM SETUP

Surveys use roster data items to create subcategories to manage detail data.

Organization of roster data items can be as simple as a single category holding detail data for one set of questionnaire items, or items can be organized into multiple categories that may or may not have parent/child relationships.

- Roster items are identified by 2-character alphnumeric identifiers called rtypes. Rtypes group items and, if parent/child relationships are used, assign the item to either the parent level or the child level. Each roster item MUST have an rtype.

- Rkeys are 11-character identifiers that allow you to create subgroups of roster items. Each roster item must have at least one rkey, called rkey1. An optional rkey2 allows further refinement of data categories.

15.1.1 Using Roster Items

Roster items have the following characteristics:

- Each item may have **one and only one rtype**. StEPS will not allow you to create a duplicate item with a different rtype.
- Each item must have one rkey. Rkey2 is optional.
- If a total is to be calculated for the roster items, the roster should contain an item that has the rtype of CALCTOTAL. This item will hold the value of the calculated total.
- If the total is to be calculated at the second level of detail (the rkey2 level), this level should also have an rtype of CALCTOTAL to define the subset to be totaled (see examples below).
- Because the roster FAT file uses a combination of ID/ITEM/RTYPE/RKEY1/RKEY2 to uniquely identify an item, it is not necessary to create many different items IDs to hold detail data. The unique values for rkey1 and rkey2 will provide unique identification.

Example:

Assume a survey collects detailed data on sales and inventory of consumer electronics. It could create an entry in the survey item dictionary for each type of consumer electronics device. In this case, the FAT file would contain each of these items every time a StEPS process is run. In some cases this could result in hundreds of data items on the FAT file, most of which would contain no data. Or, it could use the roster concept to set up individual items that use the rkeys to break out consumer electronics data into various categories. FAT file creation would only include the categories that were actually had data present.

For this example, the survey collects data in two categories: XXXX -Sales and YYYY- Inventory. For the sales category, it collects data on traditional retail sales, Internet sales,

and mail order sales for specific electronic items. Rkey1 would be used to hold the data for the first level of detail – type of sale. It could look like this:

Item XXXX:	Rtype07 – rkey1 "Retail"
Item XXXX:	Rtype07 – rkey1 "Internet"
Item XXXX:	Rtype07 – rkey1 "Mail Order"
Item XXXX:	Rtype07 - key1 "CALCTOTAL"

CALCTOTAL is used to hold the calculated total of the roster items. (The word TOTAL is used for a total that is reported on the form.)

Rkey2 is used to further subdivide the detail categories. The example below shows a child roster linked to rtype 07, above.

Item XXX1:	Rtype071 – rkey1 "Retail" - rkey 2 "Computer Sales"
Item XXX1	Rtype071 – rkey1 "Retail" - rkey 2 "Computer Sales"
Item XXX1	Rtype071 – rkey1 "Retail" - rkey 2 "CALCTOTAL"
Item XXX1:	Rtype071 – rkey1 "Retail" - rkey 2 "TV Sales"
Item XXX1	Rtype071 – rkey1 "Retail" - rkey 2 "TV Sales"
Item XXX1	Rtype071 – rkey1 "Retail" - rkey 2 "CALCTOTAL"

Figure 15.1a illustrates the use of roster items to collect and manage detail data when the individual data categories do not have a parent/child relationship. This approach works well when there is only one level of detail data. The computed total for the XXXX item provides the value for the survey item "Consumer Electronics - Sales." The computed total for the YYYY item provides the

Example of Independent Roster Types/Roster Keys

Survey collects detail data on Consumer Electronics

Each rtype can be independent of the others

item	rtype	rkey1
XXXX	070	Sales

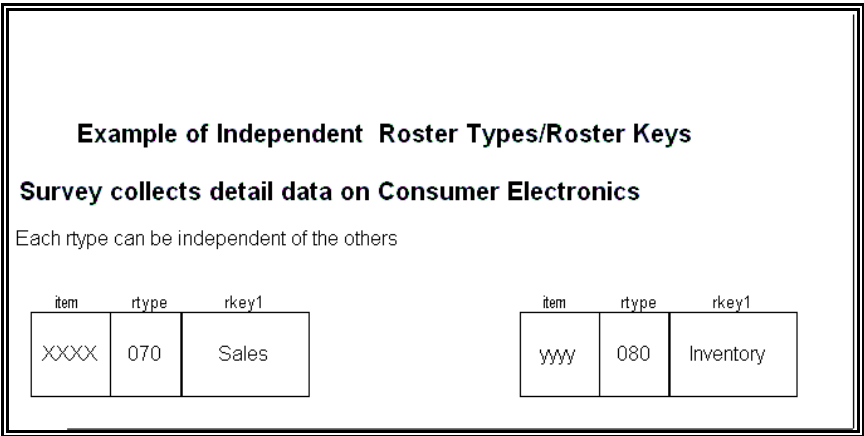| item	rtype	rkey1
yyyy	080	Inventory

Figure 15.1.1a   Independent Rtypes

value for the survey item "Consumer Electronics - Inventory."

Figure 15.1b illustrates roster items that have a parent/child relationship. The subtotals from each set of roster items would roll up to the survey item "Consumer Electronics - Sales."
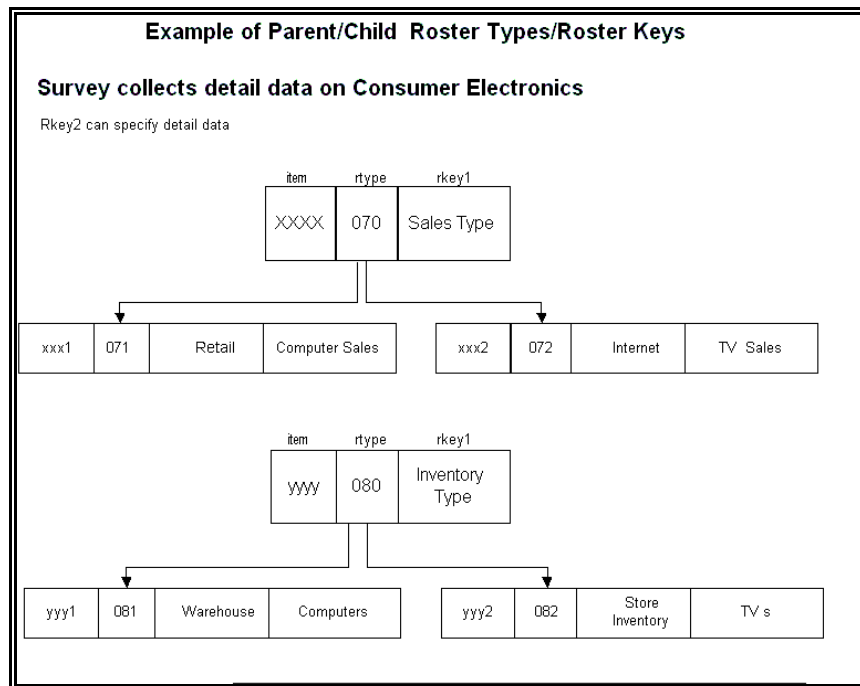

Figure 15.1b   Parent Child rtypes using rkey1 and rkey2

Roster data is sorted first by ID, then by ITEM identifier, then by RTYPE. The Review and Correction displays are organized by rtypes. Within an rtype, the display is sorted by rkey1 and rkey2. The Review and Correction roster screen displays one rtype/rkey1 combination at a time.

If you select a parent ID, such as 070, you will get a list of IDs sorted by rkey1. The display would look something like this:

Case ID	rkey1	itemID 1	data	flags	itemID 2	data	flags
123456789	Retail	xxx1	12345		xxx2	12345	
123456789	Internet	xxx1	12345		xxx2	12345	
123456789	Mail Order	xxx1	12345		xxx2	12345	
123456789	CALCTOTAL	xxx1	12345		xxx2	12345	

If you select a child rtype, a data entry area on the screen will ask you for the rkey1 items to display. If you selected "071" and "Retail," the screen would display all items identified as belonging to retail sales. It would look something like this:

Case ID/Survey	rkey2	item ID1	data	flags	item ID2	data	flags
123456789	Computer Sales	xxx1	12345		xxx2	12345	
123456789	TV Sales	xxx1	12345		xxx2	12345	
123456789	CALCTOTAL	xxx1	12345		xxx2	12345	

The roster file will create its own FAT file for processing. The roster data items will undergo edits, imputation, and review and correction as separate processing steps. The results of these procedures will be displayed on a separate Review and Correction roster matrix screen. Totals will be rolled up to the survey FAT file as specified by the survey managers.

Note that in these examples, the roster items have the same value in the ItemID1, etc. columns. The rtype and rkeys provide the unique identification.

Setting up rosters, designating data items to be rolled up, and specifying how totals will be managed is a task done jointly by the survey managers, the survey programmers, and the StEPS programming team.

Rosters provide the following advantages for surveys with large amounts of detail data:

- Processing time might be reduced. Specifications can be tailored to include only certain rtypes, which reduces the number of data items to be read.

- Analysts can define edit and imputation specifications more precisely. For example, a Where clause can specify that a range test will be run only for certain rtypes.

- Categories of detail data are preserved, making it faster and easier to compute subtotals and to provide detailed analysis reports.

- An rtype may be specified for inclusion in one stat period but not another. For example, certain items may be needed in a year-end survey, but not interim surveys.

- If the data set is very large, subsets make it easier to investigate possible problems. Review and Correction screens show a smaller number of items at any time, making it easier for analysts to evaluate unexpected data values.

15.1.2   Setting Up a Survey to Use Roster Items

To set up a survey for roster processing (or to add a roster processing option to an existing survey),
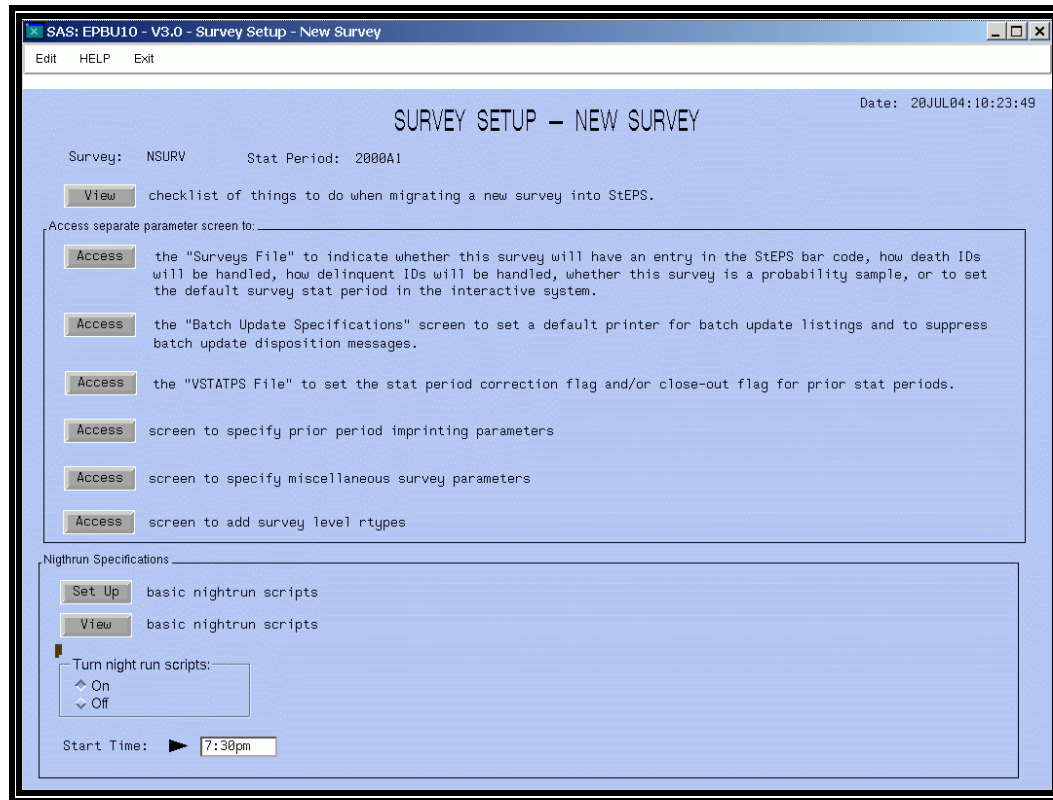
15.1.2a Survey Setup Screen – New Survey

use the "Miscellaneous Survey Parameters" option on the Survey Setup Screen. Access this screen as follows:

- Click on the SURVEY SPECIFICATIONS button from the StEPS Main Menu.
- Click on the SURVEY SETUP button on the SURVEY SPECIFICATIONS menu.

The screen shown as 15.1.2a will be displayed.

- Click on the fifth "Access" button – Access screen to specify miscellaneous survey parameters."   Figure 15.1.1b shows the roster item area of ths screen.

```
9.  Indicate if the survey has the following:

    a.  Counterparts:        ▶  ☐
    b.  Children records:     ▶  C1
    c.  Roster items:  ▶  Y
    d.  Phase Data:  ▶  ☐
    e.  Comparable data: ▶  ☐
    f.  Screened sums (allow updates to EFLG4):  ▶  Y
    g.  Alternate ID length (other than 11-characters):   ▶  10
    h.  Specify number of the address tab(s) for SFE (maximum are 4): ▶  .
```

Figure 15.1.2b Detail of Roster New Survey Setup Screen

- Set item 9c - "Roster Items" to "Y." This updates the parameter files and allows the survey to access the other roster item screens and functions. Press F2 or click "APPLY" to save.

  NOTE: You must have user privilege of MGMTPRIV = "P" to update Survey Specifications.

15.1.3   Specifying Valid Survey-Level Roster Types

Next, you must specify survey-level roster types. This will create the list of valid rtypes.

- After you set the "Roster" processing indicator to "Y" and press F2 or click "Apply," you will be returned to the New Survey Set Up screen (Figure 15.1.1.a).   From this screen click on the sixth "Access" button – "Access screen to add survey-level rtypes."

The screen shown as 15.1.3a will be displayed.

  NOTE: You must have MGMTPRIV = "P" or DATAPRIV = "U" or "P" to add or update rtype information.
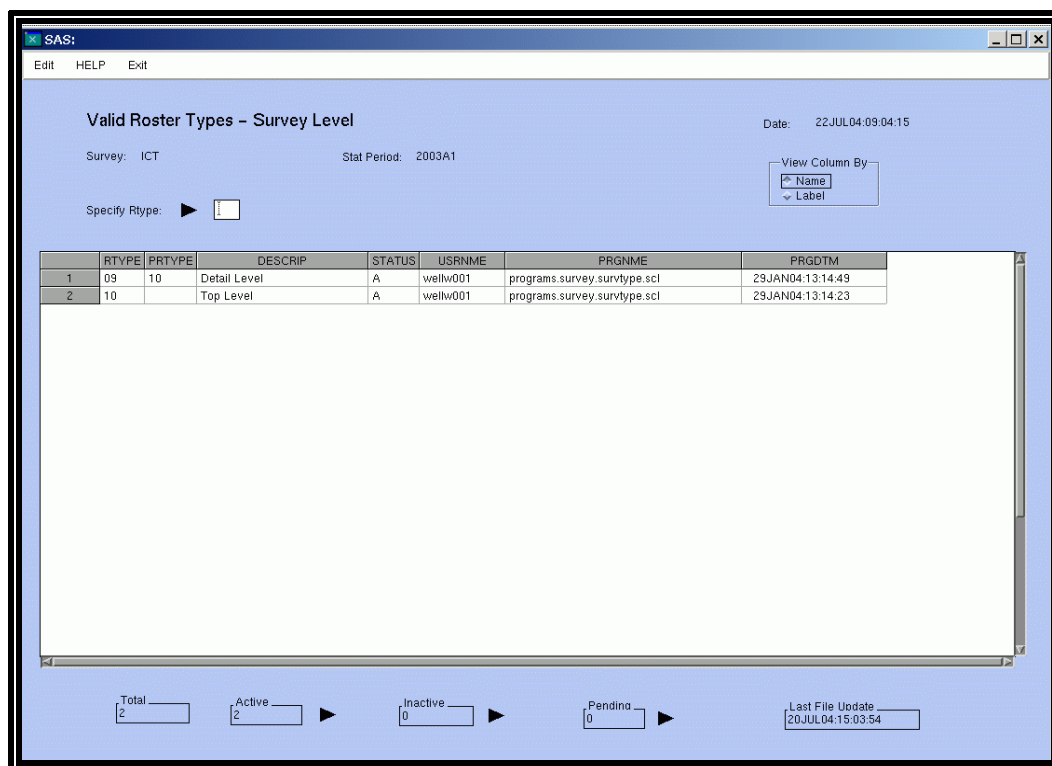
Figure 15.1.3a   Main menu screen for survey-level roster types

Screen Header and Footer

The screen header displays the survey name, the stat period currently specified as the default, and the current date. It also has a radio button option that lets you view the column headings by either column name or column label.

The footer at the bottom of the screen lists the total number of rtypes specified, the number that are active, the number that are inactive and the number pending.

 Click on the arrow (➤) by a status box to see a list of rtypes in that status.

To Add a Roster Type (Rtype)

●   Enter a unique 2-character identifier into the data entry box labeled "Specify Rtype." This identifier may be any 2 alphanumeric characters.

●   Click EDIT, then select "Add Definition." to display the screen shown as Figure 15.1.3b.

Figure 15.1.3b   Adding Rtype Definition screen

The identifier you entered on screen 15.1.3a will be displayed in the box labeled "Roster Type."

- Enter a description for the roster type (e.g., equipment expenditures).

- If this roster type is to be a child of another roster type, click the arrow (➤) by the box labeled "Parent roster type" and click to select a valid identifier that can be used as a parent. When a parent is selected, the description for the parent rtype will appear in the description field. To select a different parent, go back to the arrow, click to display the list of valid roster types and select the one you wish.

- Use the radio buttons at the top of the screen to set the status of the rtype as "Active," "Inactive," or "Pending."

- To save your roster definition and update the data base, click the APPLY button at the bottom of the screen or press F2.

The CANCEL button clears the screen entry.

EXIT (F3) returns to the Survey Set Up screen.

To Change the Status or Description of an rtype

● Double-click on its listing in the screen table. This will take you to the Valid Roster type screen (15.1.3b). Use the radio button at the top of rtype definition screen to change the status.
  -or
  Enter the rtype 2-character identifier into the data entry box labeled "Specify Rtype."

● Click EDIT, then select "Update Definition (F2)" to display the screen shown as Figure 15.1.3b. Enter your changes, then click APPLY or press F2.

To Update a Roster Definition

● From the New Survey Set Up screen (Figure 15.1.2a), click on the sixth "Access" button – "Access screen to add survey-level rtypes."

● Use the arrow by the box labeled "Specify Rtype" to display a list of rtypes specified for the survey. Click to select the rtype to modify
  -or
  Double-click the listing in the table to select the rtype.

● Click EDIT then select "Update Definition"

● You will be allowed to change the rtype definition and any parent-child linking.

● When the updates are complete, click the APPLY button or press F2.

To Delete a Roster Definition

● From the New Survey Set Up screen (Figure 15.1.), click on the sixth "Access" button – "Access screen to add survey-level rtypes."

● Use the arrow by the box labeled "Specify Rtype" to display a list of rtypes specified for the survey. Click to select the rtype to modify.
  -or-
  Double-click the listing in the table to select the rtype to delete.

● Click EDIT then select "Delete Definition" or press F6

● A confirmation message will appear asking you if you really want to delete the rtype Click YES or NO.

● When you have finished, click the APPLY button or press F2. The rtype definition will be deleted from the database.

15.1.4 Defining Roster Items in the Item Data Dictionary

To add a new roster item or to mark an existing item for roster processing, you use the Item Data Dictionary Review and Correction Screen. To access this screen:

- Click on the SURVEY SPECIFICATIONS button from the StEPS Main Menu.

- Click on the DATA DICTIONARIES button from the Survey Specifications Menu.

- Select the "Item Dictionary" option to display the screen shown as Figure 15.1.4.

Figure 15.1.4 Item Data Dictionary Specification Screen

Note: You must have DATAPRIV = "U" or "P" to update the item data dictionary.

- Set the fields listed in the table below (found in the "Flags" area of the screen.)

FIELD	DESCRIPTION	VALUES
ROSTER	Indicates that the item appears in either the item file or the roster file.	blank Item file R Roster file
RTYPE	Holds a valid roster type specified by the survey. Click on the arrow by the RTYPE field to display the list of valid rtypes. Click on an rtype listing to select the value. This is only valid when ROSTER='R'	**For example:** Roster type'06' represent roster items associated with item 6 data on the ACES survey form. Roster type '10' represents a total on the ICT survey form. Roster type '09' is a child rtype that is a detail breakout of the data in '10'.
RKEY1	Contains a description of the information used to specify the first key in the roster file. Only valid when ROSTER = 'R'.	Any 11 alphanumeric characters **For example:** TOTAL Used Equipment Administrative Facilities
RKEY2	Contains a description of the information used to specify the second key in the roster file. Only valid when ROSTER = 'R'.	Any 11 alphanumeric characters **For example:** Structure code Equipment code

● To save your entry, select EDIT in the pmenu, then select "Apply corrections"
  – or –
  Press F2.

● Press F3 to exit without saving your corrections. A confirmation box will appear to ask you if you want to save your database changes. If you do not, click NO.

See section 2.1.1. for complete instructions on using the Item Dictionary and entering data on the Item Dictionary Review and Correction screen.

15.1.5 Specifying Roster Types for a Given Stat Period

To include data items in the FAT file for roster processing for a given stat period, or to view these items in review & correction, you must specify the roster types to be used as part of survey setup. (These specifications may be marked for inclusion in rollover processing, which means you will not have to redo the specifications for each stat period. However, you do have the option of changing roster item specifications between stat periods.)

To specify valid roster types for a survey:

● Click on the SURVEY SPECIFICATIONS button from the StEPS Main Menu.
● Click on the SURVEY SETUP button from the Survey Specifications Menu.
● Select the "New Stat Period" option.
● Select the fifth "Access" button from the "Survey Setup – New Stat Period" screen to

Figure 15.1.5 Valid Roster Type - New Stat Period screen

display the Valid Roster Type File – New Stat Period parameter screen (Figure 15.1.5).

Select the stat period that will use the roster type specifications by clicking on the arrow (➤) by the "Select Stat Period" box. A list of valid stat periods will be displayed. Click on the one you wish to select.

Then select the rtypes to include:

- Click on the arrow by the box labeled "Roster Type 1." A list of valid rtypes will be displayed.
- Click to select the one you want. Its rtype ID and description will appear on the screen.
- If the rtype you select has been specified as a child, its parent ID will be displayed in the column labeled "Parent Rtype." (If both the parent and the child are to be used, it is best to select the parent first.)
- Continue the selection process until up to 5 rtypes have been chosen.
- To save your selections, go to EDIT on the pmenu, and then select "Apply Corrections" or press the APPLY (F2) button

The CLEAR button clears all selections on the screen.

The COPY button displays a list of stat periods that have stored rtype specifications available. When you click this button and select a period, a message asks if you want to have the values from that period displayed on the screen. Click YES or NO. If you choose YES, the earlier periods values are copied to the screen. You can then either save the selections for the current period or modify the selections (add or delete rtypes) and save the modified version for the current stat period.

The DELETE button deletes the current stat period. (Use carefully!)

The EXIT button returns you to the SURVEY SETUP screen.

The bottom of the screen displays the name of the user who last updated the survey selection file, the name of the program that updated the file, and the date of the last modification.

Survey Setup – New Survey Screen (Figure 15.1.2a)
Valid Roster Types - New Survey (Add/Update screen) (Figure 15.1.3b)

P-Menu	Options	Function
EDIT	Apply corrections (F2)	Apply corrections to database
HELP	Survey Set-up Help (F1) WhoamI (F7)	Display HELP information (Not implemented) Display user default and systems information
EXIT	StEPS Main Menu (HOME) Exit (F3)	Return to StEPS Main Menu Exit to previous screen

Valid Roster Types – Survey Level Screen (Figure 15.1.3a)

P-Menu	Options	Function
EDIT	Add definition Delete definition (F6) Update definition (F2)	Displays Add/Update Definition screen Deletes definition Displays Add/Update Definition screen
HELP	WhoamI (F7)	Display user default and systems information
EXIT	StEPS Main Menu (HOME) Exit (F3)	Return to StEPS Main Menu Exit to previous screen

Screen 5.1.2 – Item Data Dictionary: Pmenu option and detailed explanations of their use will be found in section 2.1.1

Valid Roster Types - New Stat Period (Figure 15.1.5)

P-Menu	Options	Function
EDIT	Apply corrections (F2) Delete Stat Period	Apply corrections to database Deletes roster item entries for selected stat period
HELP	Valid Roster Type Help (F1) WhoamI (F7)	Display HELP information (Not implemented) Display user default and systems information
EXIT	StEPS Main Menu (HOME) Exit (F3)	Return to StEPS Main Menu Exit to previous screen